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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/725,889  | 12/02/2003  | Robert J. Barsotti   | FA1133USNA          | 3390             |
| 23906   | 7590        | 02/02/2005           | EXAMINER            |                  |
| E I DU PONT DE NEMOURS AND COMPANY<br>LEGAL PATENT RECORDS CENTER<br>BARLEY MILL PLAZA 25/1128<br>4417 LANCASTER PIKE<br>WILMINGTON, DE 19805 |             |                      | BOYKIN, TERRESSA M  |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1711                |                  |
| DATE MAILED: 02/02/2005   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/725,889

Applicant(s)

BARSOTTI ET AL.

Examiner

Terressa M. Boykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Claim Rejections 35 USC 112**

Claim 1 is rejected under 35 USC 112 first paragraph, because the specification, while being enabling for the broadly defined coating composition clearly defines on page 2 line 2 through page 3 line 10. The composition as containing a diol which is a *reaction product* of a hydroxy carboxylic acid with at least one acid group and at least one hydroxyl I group in the molecule and epoxy group containing compounds. Note applicants' specification page 4 lines 3-15.

It is noted that although the CCPA has criticized the use of the characterization "too broad" or undue breadth"...however, an application whose claims(s) are of a breadth which are not adequately supported by its specification is in violation of 35 USC 112 first paragraph. In re Borowski et al., (CCPA 1970) 424 F2d 904; In re Wakefield, (CCPA 1970 422 F2d 897; In re Hammack, (CCPA 197). (Applicants' claim 4 more clearly defines applicants' invention wherein the diol is a reaction product of a hydroxy carboxylic acid with at least one acid group and at least one hydroxyl I group in the molecule and epoxy group containing compounds.)

**35 U.S.C. 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim(s) 1-13 are rejected under 35 USC 103(a) as being unpatentable over USP 5,719,234 see abstract, cols. 1-4, claims 1, 7; in view of USP 6,713,551; USP 6,350,526; or USP 6,180,175 or additionally with regard to claim 13 USP 5,244,696.**

**USP 5,719,234** discloses a heat-curable high solid *coating composition* capable of forming a *coating* film which is excellent in both acid resistance and scratch resistance, and a method for forming a topcoat using said *composition*.

The reference provides a heat-curable high solid *coating composition* comprising:

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(A) a carboxyl-containing compound, (B) a vinyl polymer having an epoxy group, a hydroxyl group and a hydrolysable alkoxysilyl group in one molecule, (C) a reactive organopolysiloxane, and (D) a crosslinked particulate polymer. The present invention also provides a method for forming a topcoat using said *composition*.

Usable polyols of the reference are those having about 2 to about 20 carbon atoms. Preferably usable are diols, triols, mixtures thereof, and like polyols having 2 to 10 carbon atoms. Preferable examples are aliphatic polyols such as ethylene glycol, 1,2-propanediol, 1,3-propanediol, 1,4-butanediol, 1,5-pentanediol, glycerol, 1,2,3-butane triol, 1,6-hexanediol, neopentyl glycol, diethylene glycol, dipropylene glycol, 1,4-cyclohexane dimethanol, 3-methyl-1,5-pentanediol, trimethylolpropane, 2,2,4-trimethylpentane-1,3-*diol*, pentaerythritol and 1,2,3,4-butanetetraol. Aromatic polyols such as bisphenol A and bis(hydroxymethyl)xylene are also usable.

Examples of the epoxy-containing vinyl monomer of the reference are glycidyl (meth)acrylate, allyl glycidyl ether and the like. Examples of the hydrolyzable alkoxysilyl group-containing vinyl monomer are vinyltrimethoxysilane, vinylmethyldimethoxysilane, vinyltriethoxysilane, vinylmethyldiethoxysilane, vinyltris(2-methoxy-ethoxy)silane, .gamma.-(meth)acryloyloxypropyl trimethoxysilane, g-(meth)acryloyloxypropylmethyldimethoxysilane, vinyltriacetoxysilane, .gamma.-(meth)acryloyloxyethyl-trimethoxysilane, g-(meth)acryloyloxypropyltriethoxy-silane, g-(meth)acryloyloxypropyl

methyldiethoxysilane and the like. In view of low-temperature curability and storage stability, vinyl monomers containing an ethoxysilyl group as hydrolyzable alkoxysilyl group, such as vinyltriethoxysilane, vinylmethyldiethoxysilane, (meth)acryloyloxypropyltriethoxysilane, *g*-(meth)acryloyloxypropylmethyldimethoxysilane and the like are preferable. The hydroxyl-containing vinyl monomers and other vinyl monomers mentioned above are used in the preparation of the polymer (B).

With regard to the orthoester compound, the reference discloses that when necessary, the curable *coating composition* of the reference may contain dehydrating agents such as trimethyl *orthoacetate* for preventing the *coating composition* from degradation caused by moisture in the air or in the solvent.

Moreover, although the hydroxy-functional binder (b) is not necessarily present in applicants' composition, i.e. 0-40 wt%, the reference does disclose that when the composition containing said crosslinked particulate polymer is dried, the particulate polymer forms a cured film in combination with the *binder* resin.

With regard to claims 13 note that the reference **USP 5,244,696** discloses a *coating composition* useful for providing a finish on a variety of substrates. In particular, this reference is directed to an organosilane *composition* which may be used for finishing automobiles and trucks. Note further that claim 23 of the reference discloses a *composition* wherein the water scavenger is trimethyl *orthoformate* or triethyl *orthoformate*.

Thus, the reference discloses the claimed invention except for the particular resulting orthoester compound with at least one free hydroxyl group per molecule. However, the use of the orthoester compound for use in preparing coating compositions of the like is widely known for the purpose of dehydrating the composition. For example, **USP 6,713,551** discloses that, in cases that a pigment, an additive and/or a solvent is incorporated in the above curable *coating composition*, the amount thereof or the method of dissolution or dispersion thereof is not particularly restricted but the addition amount and the method of dissolution or dispersion which are generally used for ordinary polyether polyols or acrylic polyols may be employed. The above-mentioned additive is not particularly restricted but includes, among others, dehydrating agents: hydrolysable ester compounds such as methyl *orthoformate* and ethyl *orthoformate*, etc. Further, note **USP 6,350,526** discloses that the coating *composition* may also include other conventional formulation additives such as; water scavengers such as tetrasilicate, trimethyl *orthoformate*, triethyl *orthoformate* and the like. Additionally, **USP 6,180,175** notes that in the *coating composition* of the reference, a so-called dehydrating agent such as trimethyl *orthoacetate* etc. can be compounded, as necessary, in order to inhibit the deterioration of the *coating* material by water existing in compounding solvents or in air.

Thus, it would have been obvious to one having ordinary skill in the art at the

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time the invention was made to employ the particular orthoester compound since it is well established that such is commonly and preferably used as a water or hydroxy scavenger of like compounds. Further, with regard to the 20% to 80)% wt of at least one orthoester compound, it is well established that merely selecting proportions and ranges is not patentable absent a showing of criticality. In re Becket, 33 USPQ 33 (CCPA 1937). In re Russell, 439 F2d 1228, 169 USPQ 426.

With regard to claims 13 note that the reference **USP 5,244,696** discloses a *coating composition* useful for providing a finish on a variety of substrates. In particular, this reference is directed to an organosilane *composition* which may be used for finishing automobiles and trucks. Note further that claim 23 of the reference discloses a *composition* wherein the water scavenger is trimethyl *orthoformate* or triethyl *orthoformate*.

### **Correspondence**

Please note that the cited U.S. Patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)) from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center at [Http:www.uspto.gov/ebc/index.html](http://www.uspto.gov/ebc/index.html) or 1-866-217-9197.

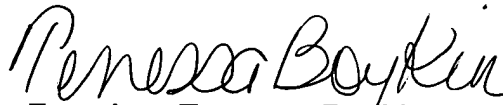
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday at 9:00am to 4:00pm.

The fax phone number to the organization where this application or proceeding is assigned is 703 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private Pair or Public Pair. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 1 866-217-9197 (toll-free)

tmb

  
**Examiner Terressa Boykin**  
**Primary Examiner**  
**Art unit 1711**